

Screening and Management of Patients with Suspected Ebola Virus Disease (EVD) in Emergency Departments

Sudden onset of fever AND any of the following:

- Malaise
- Myalgia/muscle pain
- Headache
- Chest Pain
- Vomiting, diarrhea that can be bloody
- Pharyngitis
- Conjunctivitis
- Macular/petechial rash
- Bleeding from gums, nose, GI tract, injection sites (unrelated to injury)



Within 21 days of onset of illness the patient has:

- Travelled from a specific areas of a country where an outbreak of EVD has recently occurred (Outbreaks have been declared in Sierra Leone, Liberia, Guinea, & Nigeria.) or
- Had contact with ill individual(s) who has developed symptoms of EVD within 21 days of travel to an Ebola area or
- Has been exposed to bats, rodents, or primates from disease-endemic areas or laboratories that handle Ebola viruses

Clinicians can find additional information in "Fever in the Returning International Traveler Initial Assessment Guidelines", CCDR, ACS-3, July 2011 <http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/11vol37/acs-3/index-eng.php>

If "Yes" to the above criteria, initiate the following:

Patients with suspected or confirmed Ebola should be immediately placed in an isolation room with negative pressure, with an ante-room, and its own bathroom. The door must be kept closed.

➡ Initiate Airborne Isolation Precautions, in addition to all routine infection-control practices. **If you are planning a transfer to an Ebola unit, plan carefully and maintain precautions, including:**

- Wear impermeable or fluid-resistant gloves, gown, with foot and shoe coverings. Hazmat protection, consisting of a hood and a positive pressure respirator must be used when caring for a patient with suspected or confirmed Ebola.
- Use impermeable personal protective equipment (disposable leg and shoe covering) if patient is experiencing bleeding or uncontrolled diarrhea or emesis.
- Aerosol generating medical procedures (i.e., bronchoscopy) should be performed in airborne isolation rooms and only if medically necessary. The number of healthcare workers present should be limited during these procedures and a positive-pressure respirator should be worn in addition to other personal protective equipment.



Continued →

- ➔ **Post additional personnel at door(s) of isolation room** to observe/assist with proper removal of personal protective equipment. **Assign clinical and non-clinical personnel exclusively to the patient** with no other patient assignment.
 - If radiology is required it must be done by portable in the room.
- ➔ **Maintain a log of persons entering the patient's room. Restrict visitors.** Exceptions will be considered on a case by case basis, in consultation with Infection Control.
- ➔ **Limit use of needles/sharps** and immediately dispose of them in a puncture-proof, sealed container. Do NOT draw blood or take lab specimens unless ordered by physician. Meticulous handling of blood and body fluids is imperative.
- ➔ **Carefully and consistently apply your hospital's recommended Infection Prevention and Control Precautions.**
- ➔ **Print out and fill in the notification form on page 4.**

Information provided is the most current but will change; we will update this as the information is received.



Additional information regarding patient assessment and care:

Assessment

- Walk-in and ambulance patients must be assessed for travel; educate reception employees as well as physician office staff, EMT's, and first responders such as police and fire. Travel to affected areas + signs and symptoms within 21 days, equates to a high risk patient; it doesn't mean they have Ebola but that it should be ruled out.

Obtaining Specimens

- Consult the Department of Public Health web site: www.massdph.gov. Search Ebola
- <http://www.cdc.gov/vhf/ebola/hcp/interim-guidance-specimen-collection-submission-patients-suspected-infection-ebola.html#update2>

Removal of Waste

- Patients can use the bathroom and flush according to Massachusetts Department of Public Health; the sewage handling process in the United States is designed to inactivate infectious agents
- Emory Hospital is the hospital that treated the first Ebola patient. They stated they disinfected all waste prior to flushing the toilet. Use bleach.
<http://advancingyourhealth.org/highlights/posting-policy/faqs-about-the-ebola-virus-and-emory-university-hospital/#q10.5>
- Materials used in the care of patients such as personal protective equipment, linen, wipes, food trays, dishes and utensils should be placed in a leak proof container and sealed and disposed of as regulated medical waste. To minimize the possibility of contamination of the exterior of the waste bag place this bag in a rigid waste receptacle. Waste Management companies will incinerate.
- Emory Hospital autoclaved waste and then sent it for incineration; if this can be done then do so.

Personal Protective Equipment

- Why do responders in Africa wear so much personal protective equipment (that can include full body suits) for this Ebola outbreak when CDC says hospitals here could safely manage the care of an Ebola patient without a full body suit? Everyone is questioning this process; even in full body suits the providers in Africa are contracting this disease. At Emory Hospital they used a special containment unit and still wore hazmat suits. **We are recommending if we are treating an Ebola patient in our hospitals do it in negative isolation rooms and wear hazmat protection, (full body suit and hood with positive pressure HEPA filtered air).**

Medication Delivery

- Prepare to take all the medications needed into the room when you get into your personal protective equipment and enter, but if additional medication is needed it will be prepared and placed in the ante room for you to obtain and administer to your patient. Take care not to contaminate and only take into the room what is needed.

Preparing a Dead Body

- If a patient dies from Ebola, please call the Department of Public Health for containment instructions. Be careful to maintain full precautions while handling and wrapping and transferring the body. Notify the medical examiner.

Cleaning a Room Following the Discharge of an Ebola Patient

- Housekeeping or environmental services personnel cleaning or repairing a room need to be in full personal protective equipment. Strip the room completely, wrap all items as regulated medical waste, and follow instructions above for waste disposal. Ebola virus is sensitive to ultraviolet light so a cleaning robot will work as long as there is no organic matter. The Ebola virus will live for six days in organic matter, so deep clean first. If no ultraviolet light clean ceilings, light fixtures, walls and wall hangings (we recommend removal of such prior to a patient's arrival), floors etc. All equipment that cannot be disposed of must remain in the room and undergo extensive cleaning, using your hospital disinfectant.

Information provided is the most current but will change; we will update this as the information is received. The Massachusetts Department of Public Health and the Center for Disease Control recommend wearing negative pressure respirators. It is the opinion of the MNA's Health and Safety Department to maximally protect our nurses with positive pressure respirators.

Links:

<http://www.mass.gov/eohhs/gov/departments/dph/programs/emergency-prep/threats/biological/ebola-virus.html>

<http://time.com/3067816/emory-university-ebola-patient-isolation-unit/>

<http://www.cdc.gov/vhf/ebola/index.html>

<http://www.cdc.gov/vhf/ebola/hcp/interim-guidance-specimen-collection-submission-patients-suspected-infection-ebola.html#update2>

<http://www.cdha.nshealth.ca/system/files/sites/94/documents/screening-and-management-patients-suspected-or-confirmed-ebola-virus-disease-revised-sept-2014.pdf>

<http://www.cidrap.umn.edu/news-perspective/2014/09/commentary-health-workers-need-optimal-respiratory-protection-ebola>

<http://gizmodo.com/what-an-isolation-ward-for-u-s-ebola-patients-is-like-1616033868>

Suspected EVD Notification List

Print this form and add your hospital's numbers in advance of a patient suspected of Ebola, being admitted.

Notify:

- **The Department of Public Health- 617-983-3800** (this number is 24/7).
- **The Infectious Disease physician on call** at _____ (or after hours through locating at _____).
- **The Microbiologist on call** through locating (_____) to discuss the optimal specimen type, collection, and transport procedures. Transport specimen directly to the lab in a rigid, leak-proof closed container.
- **Infection Preventionist, (_____).**